REMARKS

This Response is submitted in reply to the final Office Action mailed on August 28, 2007. Claims 1 to 24 are pending. Claims 1 to 24 stand rejected. Please charge Deposit Account No. 02-1818 for any fees which are due and owing. Also submitted is an Information Disclosure Statement, the references of which have been cited in related co-pending application No. 11/099,169, filed April 5, 2005.

In the Office Action, Claims 1 to 9, 16 and 17 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Application Publication No. 2003/0143352 A1 to Yang et al. ("*Yang*") in view of U.S. Patent No. 5,674,333 to Spencer ("*Spencer*"). Claims 10 to 15 and 23 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yang* and *Spencer* in view of U.S. Patent No. 4,832,773 to Shaposka et al. ("*Shaposka*"). Claims 18 to 20, 22 and 24 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,345,070 to Hlavinka et al. ("*Hlavinka*") in view of U.S. Patent No. 5,501,759 to Froman ("*Froman*"). Claim 21 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Hlavinka* in view of *Froman* and further in view of U.S. Patent Application Publication No. 2003/0226631 to Sterud et al. ("*Sterud*").

Regarding the obviousness rejection of Claims 1 to 9, 16 and 17 in view of *Yang* and *Spencer*, Independent Claim 1 recites, in relevant part, a method of connecting together two sections of tubing comprising the steps of maintaining interior passages of the two tubing sections so as to be free from exposure to the surrounding environment until and during welding; and directing an electromagnetic beam generally toward the location where the axially facing surfaces are in opposed, end-to-end relation for welding the two sections of tubing together at the location [emphasis added]. Applicants respectfully submit that the combination of cited references, even if combinable, fail to disclose every element of the present claims.

For example, as admitted in the Office Action, *Yang* fails to disclose or suggest maintaining interior passages of the two tubing sections so as to be free from exposure to the surrounding environment until and during welding. See, Office Action, page 2. However, *Yang* also fails to disclose or suggest directing an electromagnetic beam generally toward the location where the axially facing surfaces are in opposed, end-to-end relation. By contrast, *Yang* appears

to merely teach splitting a laser in two and directing each laser to a respective end of a tube. Specifically, *Yang* states:

> After each tube end 51 is loaded into its respective tube holder 70, 72, the laser unit 200 is activated and energy diverges from the laser source. The collimator 204 refocuses the diverging energy toward the prism lens 206. As the energy/light strikes the reflective prism 206 it reflects into two bundles of energy. In this embodiment, the prism lenses 210, 212 re-direct each bundle of energy at approximately a 90° angle to focus the energy around the tube ends 51. More particularly, a "spot" of energy strikes the tube ends 51 and preferably, slightly exceeds the diameter B of the tube 50 to ensure the tube is covered with adequate radiant energy. [emphasis added]

See, *Yang*, [0068]. The present claims, unlike *Yang*, are not directed to focusing energy directly to the tube ends. Rather, the present claims are directed to a beam that focuses on a general location in which the axially facing surfaces of the tube ends are in opposed, end-to-end relation. For example, Figure 5 illustrates the beam energized to direct its beam towards a film 37 placed between the two opposing tube ends 51. See, specification, [0040] to [0042]. Moreover, Figures 2 to 4B show weld blocks 29 and 33, immediately adjacent and engaging the axially facing surfaces of the tube ends, for absorbing energy from the laser beam and conducting heat to the tubes to melt and seal shut the tube ends. See, specification, [0036] to [0037].

Applicants respectfully submit that *Spencer* fails to remedy the deficiencies of *Yang*. For example, *Spencer* fails to disclose or suggest directing an electromagnetic beam generally toward the location where the axially facing surfaces are in opposed, end-to-end relation. Instead, *Spencer* teaches direct heating of the tubes using a heat knife or heated wafer that passes through and between aligned tubes to sever the tubes and then from a subsequent weld while the tube ends are in a molten state. See, *Spencer*, Abstract, Figure 5 and column 3, lines 12 to 30. Therefore, the combination of *Yang* and *Spencer* fail to disclose of suggest every element of independent Claim 1 and, as a result, Claims 2 to 9, 16 and 17 that depend on Claim 1.

Regarding the obviousness rejection of Claims 10 to 15 and 23, Applicants respectfully submit that the patentability of independent Claim 1 in view of *Yang* and *Spencer,* established above, renders moot this obviousness rejection. The Patent Office relies on *Shaposka* to arguably disclose elements of claims dependent on Claim 1. Therefore, *Shaposka* inherently fails to remedy the deficiencies of *Yang* and *Spencer* established above.

Regarding the obviousness rejections of Claims 18 to 20, 22 and 24, independent Claim 18 recites, in relevant part, a method of sealing a section of tubing comprising clamping at least a portion of the tubing section such that a collapsed portion of the tubing section extends past the clamped portion; directing a beam of electromagnetic energy onto the energy absorption member, the energy absorption member being constructed for absorbing energy from the beam; and transferring heat from the energy absorption member to the collapsed tubing section portion by contact therewith. Applicants respectfully submit that, even if combinable, the combination of *Hlavinka* in view of *Froman* fails to disclose every element of the present claims.

For example, as admitted in the Office Action, *Hlavinka* fails to disclose a collapsed portion of the tubing section that extends past the clamped portion. See, Office Action, page 6. However, *Hlavinka* fails to disclose other elements of the present claims. For example, *Hlavinka* also fails to disclose or suggest directing a beam of electromagnetic energy onto the energy absorption member as required, in part, by Claim 18. Rather, RF energy is applied to the upper and lower jaws 22 and 24 to establish an electric field. That field produces heat that transfers to the insulating sleeve 12 and tube 10. See, *Hlavinka*, column 5, lines 14 to 40. In the Office Action, the Examiner refers to the insulating sleeve 12 as the energy absorption member. However, sleeve 12 is a thermal insulator, but not an energy absorption member, meaning that the sleeve is not heated dielectrically as is the case with tubing 10 of *Hlavinka*. See, *Hlavinka*, column 4, lines 15 to 18. Instead, sleeve 12 only serves to insulate tubing 10 once the tubing is heated dielectrically by the radio frequency electric field. See, *Hlavinka*, column 5, lines 32-35.

Because *Hlavinka* fails to absorb heat, it also fails to transfer heat from the energy absorption member to the collapsed tubing section as provided in Claim 18. In *Hlavinka,* the insulating sleeve 12 does not function to "transfer" heat to the collapsed tubing section. Rather, *Hlavinka* states: "With the tubular insulating sleeve 12 in place, however, sufficient heat is retained in the thermoplastic material of the medical tube 10 so that further melting occurs at the sealing location 30 as the jaws 22 and 24 are moved toward each other." See, *Hlavinka*, column 5, lines 32 to 36. Further, *Hlavinka* asserts that without the sleeve 12, heat would move back from the plastic tube to the jaws. See, *Hlavinka,* column 5, lines 25 to 30. Therefore, as stated previously, the tubular insulating sleeve 12 only functions to retain heat. It does not function to convert energy to heat and transfer that heat to the tube.

Froman is cited art to teach a collapsed portion of the tubing section extending past the clamped portion and does not cure the deficiencies of *Halvinka*. Therefore, the combination of *Hlavinka* and *Froman* fail to disclose of suggest every element of independent Claim 18 and, as a result, Claims 19, 20, 22 and 24 that depend on Claim 18.

Regarding the obviousness rejection of Claim 21, Applicants respectfully submit that the patentability of independent Claim 18 in view of *Hlavinka* and *Froman,* established above, renders moot this obviousness rejection. The Patent Office relies on *Sterud* to arguably disclose elements of claims dependent on Claim 18. Therefore, *Sterud* inherently fails to remedy the deficiencies of *Hlavinka* and *Froman* established above.

Accordingly, Applicants respectfully req uest that the obviousness rejections of Claims 1-24 in view of the cited references above by withdrawn.

For the foregoing reasons, Applicants respectfully submit that the present application is in condition for allowance and earnestly solicit reconsideration of same.

Respectfully submitted,

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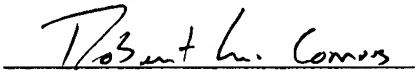
BY 

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